

NOVEMBER/DECEMBER 2023

**BABC25C/FABC25C/CABC25C —  
BIOCHEMISTRY – II**

Time : Three hours

Maximum : 75 marks

**SECTION A — (10 × 2 = 20 marks)**

Answer ALL the questions.



1. Define transamination.
2. What is the energetics of aerobic and anaerobic oxidation of glucose?
3. What is Cori's disease?
4. Give any two ways to prevent dehydration.
5. What are ligases?
6. How will temperature affect enzyme activity?
7. What is meant by semi-conservative mode of replication?
8. Is central dogma applicable to RNA viruses?



9. Write any two functions of Niacin.

10. Give the sources of vitamin K.

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Briefly explain the reactions of Urea cycle.

Or

(b) List the preparatory steps of glycolysis.

12. (a) Write a short note on alkaptonuria.

Or

(b) How can you differentiate hemolytic jaundice from obstructive jaundice?

13. (a) Explain uncompetitive inhibition with examples.

Or

(b) Discuss the induced fit theory with neat diagram.

14. (a) Write a short note on the process of initiation of transcription in prokaryotes.

Or

(b) Explain the process of termination in transcription.

15. (a) Outline the biological functions of vitamin D.

Or

(b) Enumerate the biological role of Riboflavin.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Write down the steps of TCA cycle and highlight the energy yielding steps.

17. Discuss in detail about the deficiency, clinical presentation and diagnosis of phenylketonuria and Von Gierke's disease

18. Write an essay on mechanism of enzyme action.

19. Elaborate on the general mechanism of prokaryotic DNA replication.

20. Describe the occurrences and biological functions of Vitamin C and Vitamin B<sub>12</sub>.